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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO. |
|---|-------------|----------------------|-------------------------|------------------|
| 09/638,861  | 08/15/2000  | Yoshihiro Yamaguchi  | Q60458                  | 1136             |
| 7590  | 04/09/2004  |                      | EXAMINER                |                  |
| Sughrue Mion Zinn MacPeak & Seas<br>2100 Pennsylvania Avenue NW<br>Washington, DC 20037 |             |                      | BURLESON, MICHAEL L     |                  |
|   |             |                      | ART UNIT                | PAPER NUMBER     |
|   |             |                      | 2626                    |                  |
|   |             |                      | DATE MAILED: 04/09/2004 |                  |

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Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                      |
|------------------------------|------------------------|----------------------|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b>  |
|                              | 09/638,861             | YAMAGUCHI, YOSHIHIRO |
|                              | <b>Examiner</b>        | <b>Art Unit</b>      |
|                              | Michael Burleson       | 2626                 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_ is/are allowed.
- 6) Claim(s) 1-4 and 9 is/are rejected.
- 7) Claim(s) 2 and 4-8 is/are objected to.
- 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | Paper No(s)/Mail Date. ____ .   |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: ____ .                                   |

## DETAILED ACTION

### ***Priority***

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d).

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Takahashi et al. US 6386673.

4. Regarding claim 1, Takahashi et al. teaches of a density uniformization correcting means which is preferably done automatically (column 15, lines 60-62), which reads on an automatic density adjusting function. Takahashi et al. teaches that a printing medium can be of any type (column 21, lines 6-8) and the print heads are used for recording yellow, magenta, cyan and black (column 12, lines 5-7) and the printing heads can be arranged to allow overlap printing on the printing medium (column 2, lines

46-50), which reads on a color photographic paper that has a cyan layer, magenta layer, and a yellow layer. He teaches of the HS test pattern printing unit (column 10, lines 65-67) and test patterns are supplied by RGB signals (column 10, lines 66-67 and column 11, lines 10-12), which reads on test pattern data producing device that produces test pattern data for printing test patterns of red, green, blue colors on color photographic paper. Takahashi et al. teaches of HS test pattern printing unit (column 10, lines 65-66), which reads on a printing device that prints the test patterns of RGB colors on color photographic paper according to test pattern data. Takahashi et al. teaches of a light source (218) that illuminates the test pattern (column 11, lines 6-7), which reads on a light source that has bright line spectrums of RGB colors and throws lights onto the test patterns of RGB colors. He also teaches of a reading line sensor (217) (column 11, lines 7-8), which reads on a light receiving sensor that has spectral sensitivity characteristics in wavelength areas of RGB colors and measures amounts of reflected lights of the test patterns of RGB colors. Takahashi et al. teaches of an image formation unit (column 15, lines 47-49) in which densities to individual printing elements are measured (column 16, lines 13-16) by integrating the quantity of reflected light (column 16, lines 21-25), which reads on a density measuring device that measured densities of CMY colors according to the amounts of the reflected lights of the test patterns of RGB colors that are acquired from the light receiving sensor. He also teaches of an image formation unit and a manual adjusting device (column 15, lines 46-49 and 66-65), which reads on an adjusting device that adjusts color production of the

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CMY layers of color photographic paper so that the measured densities of CMY color are target densities.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al. US 6386673 in view of Morishima et al. US 6226022.

7. Regarding claim 3, Takahashi et al. teaches the invention as claimed in claim 1.

8. Takahashi et al. fails to teach that a light source is one of an M fixation fluorescent lamp and a Y fixation fluorescent lamp that is composed from fluorescent materials emitting the bright line spectrums of RGB colors.

9. Morishima et al. teaches of a yellow fixing fluorescent lamp (12) and a magenta fixing fluorescent lamp (13) (column 3, lines 49-53), which reads on an M fixation fluorescent lamp and a Y fixation fluorescent lamp that is composed from fluorescent materials emitting the bright line spectrums of RGB colors. Takahashi et al. could have been modified with the yellow fixing fluorescent lamp and a magenta fixing fluorescent lamp of Morishima et al. This modification would have been obvious to one of ordinary skill in the art at the time of the invention because the M and Y fixing lamps can also be used to measure density of CMY using RGB test patterns.

10. Regarding claim 9, Takahashi et al. teaches of a density uniformization correcting means which is preferably done automatically (column 15, lines 60-62), which reads on a density adjusting method. Takahashi et al. teaches that a printing medium can be of any type (column 21, lines 6-8) and the print heads are used for recording yellow, magenta, cyan and black (column 12, lines 5-7) and the printing heads can be arranged to allow overlap printing on the printing medium (column 2, lines 46-50), which reads on a color photographic paper that has a cyan layer, magenta layer, and a yellow layer. Takahashi et al. teaches of HS test pattern printing unit (column 10, lines 65-66), which reads on printing test patterns of red, green, blue colors on color photographic paper. Takahashi et al. teaches of an image formation unit (column 15, lines 47-49) in which densities to individual printing elements are measured (column 16, lines 13-16) by integrating the quantity of reflected light (column 16, lines 21-25), which reads on calculating densities of CMY colors according to the amounts of the reflected lights of the test patterns or RGB. He also teaches of an image formation unit and a manual adjusting device (column 15, lines 46-49 and 66-65), which reads on an adjusting color production of the CMY layers of color photographic paper so that the calculated densities of CMY color are target densities.

11. Takahashi et al. fails to teach of sequentially throwing lights onto the test patterns of RGB colors with a light source that has bright line spectrums of RGB and sequentially measuring amounts of reflected lights of the test patterns of RGB colors with a light-

receiving sensor that has spectral sensitivity characteristics in wavelength areas of RGB colors.

12. Morishima et al. teaches of a yellow fixing fluorescent lamp (12) and a magenta fixing fluorescent lamp (13) that are sequentially provided (column 3, lines 49-53 and figure 5), which reads on sequentially throwing lights with a light source that has bright line spectrums of RGB and the light is received by a light sensor (26), which reads on sequentially measuring amounts of reflected lights of the test patterns of RGB colors with a light receiving sensor that has spectral sensitivity characteristics in wavelength areas of RGB colors. Takahashi et al. could be modified with the yellow fixing fluorescent lamp and a magenta fixing fluorescent lamp of Morishima et al. This modification would have been obvious to one of ordinary skill in the art at the time of the invention in order to individually develop each color.

***Allowable Subject Matter***

13. Claims 2 and 4-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

14. Regarding claim 2, prior art fails to teach of a light-receiving sensor that also works as a home position sensor that detects a home position of the color photographic paper.

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15. Regarding claim 4, prior art fails to teach of a light-receiving sensor that also works as a home position sensor that detects a home position of the color photographic paper.

16. Regarding claim 5, prior art fails to teach of a test pattern data producing device produces test pattern data on six test patterns that are test patterns of RGB colors with lowest densities and test patterns of RGB colors with reference densities and density measuring device finds a ratio of an amount of a reflected light of the test pattern of R color with the lowest density to that of the test pattern of R color with the reference density, a ratio of an amount of a reflected light of the test pattern of G color with the lowest density to that of the test pattern of G color with the reference density, and a ratio of an amount of a reflected light of the test pattern of B color with the lowest density to that of the test pattern of B color with the reference density according to amounts of reflected lights of the six test patterns that are acquired from light receiving sensor and finds the densities of CMY colors according to the found ratios.

17. Regarding claim 6, prior art fails to teach of a light-receiving sensor that also works as a home position sensor that detects a home position of the color photographic paper.

18. Regarding claim 7, prior fails to teach that the light source is one of an M fixation fluorescent lamp and a Y fixation fluorescent lamp that is composed from fluorescent materials emitting the bright line spectrums of RGB colors.

19. Regarding claim 8, prior art fails to teach that the light-receiving sensor also works as a home position sensor that detects a home position of the color photographic paper.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Burleson at (703) 305-8733. The examiner can normally be reached Monday thru Friday, 8:00 a.m. – 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly Williams can be reached on (703) 305-4863. The fax phone numbers for the organization where this application or proceeding is assigned are (7013) 872-9306 for regular communications and after final communications.

Any inquiry of a general nature or relation to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

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April 4, 2004

*KAWilliams*  
**KIMBERLY WILLIAMS**  
**SUPERVISORY PATENT EXAMINER**